



Toxics Link  
for a toxics-free world

## **Toxicity at the end of light.**

**New Delhi, 7, April, 2022:** Mercury lamps continue to harm the environment and human health, claims a new study by New Delhi based environmental group, Toxics Link. The report titled *The End of Light – Waste Generated by Mercury-Bearing Lamps* by Toxics Link found that cities in India lack a take-back mechanism for CFLs and Fluorescent lamps (FTLs), and the discarded hazardous lamps end up in landfills or inappropriately recycled by the informal sector, thus releasing mercury into our environment.

The report, released today, found severe inadequacies on the part of the lighting companies to collect discarded or used lamps, in complete violation of the e-waste Rules 2016. Some of the centers listed by the companies as collection points in three cities, Delhi, Jaipur, and Ranchi, were visited by the study team, and shockingly none of them were operating (either they had closed down or were not taking back spent lamps), clearly indicating that the EPR system is operational only on paper. According to Priti Mahesh, Chief Programme Coordinator, Toxics Link, *“Do consumers have a choice onresponsibly disposing of their lamps? Even after 5 years of e-waste Rules in force, there is hardly any system on ground for collection and recycling of these lamps. The lighting industry has been shying away from taking responsibility, and unfortunately there has been little action against them by regulatory agencies.”* Only 2% of the respondents said they deposit the used light bulbs at the businesses where they bought them. And just 1% returned the bulbs to registered collectors. This demonstrates the failure of the manufacturers' take-back mechanism. According to the study, more than 60% of households and 45% of the bulk consumer's dispose of their spent lights bulbs with regular waste, ending up in landfills or getting picked up by an unorganised sector for unsafe recycling.

The study by Toxics Link covered six major areas, namely, National Capital Region (NCR), Jaipur, Goa, Vijayawada, Bhopal, and Ranchi. *“A substantial percentage of lamp waste is being disposed of in landfills, where it is expected to break down and emit mercury into the atmosphere,” Mahesh Sharma (SPAR) who carried out the study in Jaipur stated.*



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The study team also found that a small percentage of lamps, especially the CFLs, were being recycled in the unorganized sector in a rudimentary way, thus releasing mercury into the environment. It is important to note that when mercury-containing products are disposed of, the mercury does not simply disappear; it permeates into the environment. Mercury is among the most toxic environmental pollutants globally as its compounds are bio-accumulative, toxic, and persistent. Mercury is a known neuro and nephrotoxins and can cause severe harm to human health, especially women and children. In 2018, India ratified the Minamata Convention, a legally binding global treaty to protect human health and the environment from the adverse effects of mercury. Apart from EPR failure, one of the key reasons for mismanaged lamp waste is the lack of awareness among users. 88% of households and 69% of bulk consumers are unaware of the e-waste regulation, and most of them are unaware of the mercury content in these lamps. Satish Sinha, Associate Director, Toxics Link, added, “*Globally, mercury-containing lamps are being phased out, but till that happens in India, we need to manage these toxic lamps safely. And it is important that along with collection and recycling infrastructure, we work towards making consumers aware regarding the hazard*”. The study found that a large number of consumers, both households as well as bulk, preferred deposit box systems and weekly collection drives by municipalities, indicating that the brands need to spruce up their efforts.

### **Key finding from the study**

- Mercury lamps are still being used in the country.
- 50 % or more household consumers from four out of six cities are throwing EoL lamps along with their household waste. Improper disposal is high in Vijayawada (88%) and Ranchi (80%), followed by NCR (63%), Goa (57%), Jaipur (51%), and lastly, Bhopal (46%).
- A high percentage of Bulk consumers in Vijayawada (69%) and Ranchi (64%), NCR (58%), and Jaipur (52%) are also disposing of lamp waste along with other facility waste.
- A staggering 88% of the household consumers weren't aware of the E-waste regulations, while in the case of bulk consumers, a sizeable share of 69% wasn't aware.
- Among the household consumers, 68% believed that these lamps didn't contain mercury; in the case of the bulk consumers, 50% believed the same.
- There was very low awareness among both consumers as household (79%) and bulk (56%) weren't aware or not sure regarding improper disposal of mercury-containing lamps being hazardous.
- Rag pickers (87%) and door-to-door waste collectors (88%) across all six cities found mercury-based lamps in the municipal waste. Many of them reported finding broken lamps, which meant that mercury might have



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been released into the environment. The study team found that most workers handling EoL were not following occupational safety norms. The majority of them were not wearing any PPEs- 85% didn't use footwear, 53% didn't use masks, while 66% didn't wear gloves.

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